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Examiner... Bernard Kransic
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REPLY BRIEF

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Appellant respectfully asserts that the rejections set forth in the Office Action dated September 27, 2007 (hereinafter "Office Action") are deficient for the reasons set forth in the Brief of Appellant (hereinafter "Brief") and the reasons herein. Appellant respectfully requests reversal of the rejections of the claims.

Argument A

In the Examiner's Answer, the Office relies upon the same teachings of US Patent No. 5,933,184 to Ishigami as relied upon in the Office Action as allegedly teaching the positively claimed limitations of *modifying the **image data** using the correction data* recited in independent claim 1.

In particular, the Office relies upon the teachings of col. 2, lines 58+, col. 3, lines 1+ and col. 4, lines 34+ of Ishigami as allegedly teaching the claimed

modifying. Appellants respectfully submit that these teachings may not be fairly considered to teach the modification of image data recited in the claims when the claims are properly interpreted in accordance with the specification. For example, paragraph 0019 provides that image data includes page description language data or any other data comprising content to be hard imaged. To the contrary of teaching modification of image data, Ishigami teaches generation of *clock pulses* having different periods.

More specifically, the teachings of col. 2 of Ishigami fail to refer to any modification of image data in Ishigami. The teachings in col. 3 of Ishigami teach generation of a chain of image clock pulses (and the image clock pulses having three different periods based on the uniform velocity correction data as defined in col. 5, lines 1+). Appellants respectfully submit that the variation of the clock pulses having different periods may not be fairly interpreted to teach the claimed modifying the image data using the correction data when the claims are properly interpreted with the image data teachings of Appellant's specification. The teachings in col. 4 of Ishigami similarly teach generation of clock pulses with a period corresponding to the uniform velocity correction data. Again, Appellants respectfully submit that the variation of the clock pulses having different periods may not be fairly interpreted to teach the claimed modifying the image data using the correction data when the claims are properly interpreted with the image data teachings of Appellant's specification.

Appellants respectfully submit that control of the period of a *clock signal* as explicitly taught by Ishigami may not be fairly interpreted to teach the limitations of *modifying of the image data* as recited in the claims. Appellants respectfully submit the 102 rejection of the claims is in error for at least this reason.

Referring to page 17 of the Examiner's Answer, Appellants respectfully submit that generation of clock signals having different periods as disclosed by Ishigami fails to teach the claimed modifying image data when image data is properly interpreted in consideration of Appellant's specification. Appellants respectfully submit that this failure of Ishigami to teach modifying image data is not irrelevant since Ishigami fails to teach positively claimed limitations and accordingly fails to anticipate the claims. The Office recites the teachings in col. 4, lines 63-65 of Ishigami in support of the rejection and which provide that the unit 7 creates the

image signal according to image clock pulses. Appellants respectfully submit that these teachings disclose creation of the image signal and fail to teach *modification of image data* as positively-claimed.

Referring to the second paragraph of page 17, Appellants respectfully submit that the generation of different clock pulses as disclosed by Ishigami may not be fairly interpreted to teach modification of image data when image data is interpreted consistently with the specification. As opposed to reading the limitations of the specification into the claims, Appellants respectfully submit that the specification is used to interpret the "image data" limitations of the claims, and when done so, it is clear that the generation of the clock pulses by Ishigami fails to teach the claimed limitations of *modifying the image data using correction data*. In particular, generation of clock pulses may not be fairly considered to teach modifying image data when considered in view of the specification teachings stating that image data is page description language data or any other data comprising content to be hard imaged.

At page 18 of the Examiner's Answer, the Office alleges that col. 4, lines 63-55 of Ishigami teaches that the clock pulses are generated as a representation of the image signal clearly showing that the clock pulses are corresponding to image data. Appellants respectfully disagree with the interpretation by the Office and *to the contrary to the interpretation by the Office that the clock pulses are generated as a representation of the image data*, Appellants respectfully submit that the teachings relied upon by the Office disclose that the unit 7 *creates the image signal according to the clock pulses*. Furthermore, and contrary to the allegation that the clock pulses are image data, the *clock pulses correspond to the **correction data** which controls the period of the clock pulses*. Appellants respectfully submit that the clock pulses of Ishigami may not be fairly interpreted to teach the claimed image data when properly considered with the teachings of Appellants' specification.

The Office alleges at page 18 of the Examiner's Answer that the image signal of Ishigami discloses the image data of the claims. The Office's reliance upon the teachings of col. 4, lines 63-65 of Ishigami as allegedly teaching the claimed modifying the image data is in error since these teachings disclose *creation* of the image signal as opposed to *modification* of the image signal. The teachings of col.

4 cannot be considered to modify an image signal since these teachings provide for the creation of the image signal and there is no image signal to be modified. Appellants respectfully submit the limitations of *modifying the **image data** using the correction data* is not disclosed nor suggested by Ishigami and the 102 rejection is in error.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument B

Independent claim 13 recites *processing circuitry configured to access image data corresponding to images to be formed* using a hard imaging device and to *access correction data*.

Appellants note that the Office relies upon the same teachings of Ishigami as relied upon in the Office Action as allegedly teaching the claimed processing circuitry in support of the rejection. Appellants respectfully submit the teachings of the image signal clock generating unit 9 fail to disclose the claimed processing circuitry for the reasons set forth in the Brief of Appellants and as discussed herein.

The Office on page 19 of the Examiner's Answer states that the image clock generating unit 9 teaches the claimed processing circuitry and on page 20 of the Examiner's Answer states that the image signal teaches Appellants' claimed image data. As clearly disclosed at col. 4, lines 61+ of Ishigami, the *image clock generating unit 9 generates clock pulses which are subsequently used to create the image signal*.

Appellants respectfully submit that Ishigami fails to teach that the unit 9 accesses the image signal (which is relied upon by the Office as teaching the image data). In particular, Appellants respectfully submit that the teachings of the unit 9's generation of clock pulses which are *subsequently used by different circuitry* to create the image signal may not be fairly interpreted as teaching the claimed *processing circuitry configured to access the image data* as positively recited in the claims.

Appellants respectfully submit that the Office has failed to demonstrate that unit 9 accesses anything but the uniform velocity correction data which is relied upon as teaching the claimed processing circuitry configured to access the *correction data*. *Appellants respectfully submit that the single accessing by unit 9 of the uniform velocity correction data may not be fairly interpreted to teach the processing circuitry configured to access both correction data as well as the image data as positively-claimed.* Furthermore, Appellants respectfully submit it is clear that the accessing of the uniform velocity correction data may not be fairly considered to teach the limitations of the processing circuitry configured to access the image data when the image data limitations of the claims is properly considered in view of the teachings of the specification.

Appellants respectfully submit that the limitations of the processing circuitry configured to access the image data and the correction data is not disclosed by the prior art and the 102 rejection is in error for at least this reason.

Independent claim 13 also recites that the *processing circuitry is configured to modify the image data according to the correction data to reduce image errors*. The teachings of the clock generating unit 9 which is relied upon by the Office as teaching the claimed processing circuitry *generates clock pulses which are subsequently used to generate an image signal* (and which image signal is relied upon by the Office as teaching the claimed image data) *by circuitry other than unit 9*. Ishigami fails to teach or suggest that the clock generating unit 9 is configured to modify the image signal and submits such an interpretation is non-sensical inasmuch as the unit 9 generates the clock pulses which are *subsequently used to create the image signal using other circuitry*. Unit 9 fails to teach the claimed processing circuitry configured to modify the image data according to the correction data.

Referring to page 21 of the Examiner's Answer with respect to the specification, and as opposed to reading the limitations of the specification into the claims, Appellants respectfully submit the specification is used to interpret the image data limitations of the claims, and when done so, it is clear that the generation of the clock pulses by unit 9 of Ishigami fails to teach the claimed limitations of the *processing circuitry configured to modify the image data using correction data*.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument C

Claim 18 recites *processing circuitry configured to modify the image data and the modification comprises modifying the image data to control the generation of light in a manner to reduce the presence of image errors caused by scanning errors.*

The Office on pages 22-25 of the Examiner's Answer relies upon the image clock generating unit 9 as teaching the claimed processing circuitry and states that the image signal of Ishigami teaches Appellants' claimed image data. As clearly disclosed at col. 4, lines 61+ of Ishigami, the *image clock generating unit 9 generates clock pulses which are subsequently used by other circuitry to create the image signal.*

Appellants respectfully submit that the teachings of the unit 9's generation of clock pulses which are subsequently used by other circuitry to create the image signal (relied upon by the Office as teaching the claimed image data) may not be fairly interpreted as teaching the claimed *processing circuitry configured to modify the image data* as positively recited in the claims. Unit 9 generates clock signals subsequently used by other circuitry to create the image signal and fails to teach the positively-claimed processing circuitry.

Ishigami fails to teach or suggest that the clock generating unit 9 is configured to modify the image signal (relied upon by the Office as teaching the claimed image data) and Appellants respectfully submit that such an interpretation is in error inasmuch as the unit 9 generates the clock pulses which are *subsequently used to create the image signal.*

Furthermore, with reference to page 24 of the Examiner's Answer, Appellants in their Brief are not attempting to have limitations of the specification read into the claims. However, Appellants respectfully submit the specification is used to interpret the image data limitations of the claims, and when done so, it is

clear that the generation of the clock pulses in Ishigami by unit 9 fails to teach the claimed limitations of the *processing circuitry configured to modify the <u>image data</u>*.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument D

Independent claim 27 recites *a computer-readable medium encoded with computer-readable instructions to cause <u>processing circuitry</u> of a hard imaging device to perform processing comprising: <u>accessing **image data** corresponding to an initial image to be hard imaged using the hard imaging device; accessing **correction data**</u>; and <u>modifying the image data responsive to the correction data</u>*.

The Office does not identify new teachings of Ishigami in support of the rejection of claims 27-30 but refers to other arguments in the Examiner's Answer. The Office in the Examiner's Answer relies upon the image clock generating unit 9 as teaching the claimed processing circuitry and the image signal as teaching the claimed image data. Per col. 4, lines 61+ of Ishigami, the image clock generating unit 9 generates *clock pulses* which are subsequently used by circuitry other than unit 9 to create the image signal.

Appellants respectfully submit that Ishigami fails to teach that the unit 9 accesses the image signal (which is relied upon by the Office as teaching the image data). In particular, Appellants respectfully submit that the teachings of the unit 9's generation of clock pulses which are *subsequently used by <u>different circuitry</u>* to create the image signal may not be fairly interpreted as teaching the limitations of the computer-readable instructions to cause the claimed *processing circuitry to perform processing comprising <u>accessing the **image data**</u>* as positively recited in the claims and when properly interpreted in accordance with teachings of the specification.

The only accessing by unit 9 of Ishigami is accessing uniform velocity correction data and Appellants respectfully submit such *single accessing of correction data* may not be fairly interpreted to teach the claimed limitations of the computer-readable instructions to cause the claimed *processing circuitry to perform*

*processing comprising accessing the **image data** in addition to accessing **correction data***.

Appellants respectfully submit that the above-recited limitations are not disclosed by the prior art and the 102 rejection is in error for at least this reason.

The claims also recite the computer-readable instructions to cause the claimed *processing circuitry to perform processing comprising modifying the **image data** responsive to the **correction data***. The teachings of Ishigami of the clock generating unit 9 (which teaches the processing circuitry according to the Office) generating the clock pulses which are subsequently used by other circuitry to generate the image signal (which signal teaches the image data according to the Office) fails to teach the above-recited limitations of the computer-readable instructions to cause the claimed *processing circuitry to perform processing comprising modifying the **image data** responsive to the **correction data***.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully submit that the rejection of the claims is improper for the above-mentioned reasons. Appellants note that claims 29-30 depend from and include the limitations of independent claim 27 discussed herein and Appellants respectfully submit that claims 27-30 are in condition for allowance for the above-mentioned reasons. Appellants respectfully request reversal of the prior art rejections of claims 27-30.

Argument E

Claim 2 recites *rasterizing the image data from an initial format to raster image data and the modifying the image data using correction data comprises modifying the image data being rasterized during the rasterizing.*

The teachings of col. 3, lines 59-61 and Figs. 11a-b of Ishigami fail to teach rasterizing image data from an initial format to raster image data and are void of disclosing modifying the image data using the correction data during rasterizing of the image data as claimed. The generic scanning teachings of col. 4, lines 59-61 disclose scanning and fail to teach rasterizing image data from an initial format to raster image data, rasterizing using correction data or modifying the image data during the rasterizing when the limitations are properly interpreted consistent with

the specification as discussed in the Brief of Appellants. The use of velocity correction data disclosed at col. 6, lines 25+ relied upon by the Office fail to disclose rasterization from an initial format to raster image data or modifying of the image data during the rasterizing.

Referring to page 27 of the Examiner's Answer, the Office alleges that "the main scan direction is essentially rasterizing because rasterizing is essentially scanning of pixels." As discussed in the Brief of Appellants, the specification of the present application discloses rasterizing image data from an initial format to raster image data and following the rasterization, scanning of the image data. The scanning of Ishigami may not be fairly interpreted to teach the claimed rasterization as used in the application which clearly discloses rasterizing from an initial format to raster image data as explicitly distinguished in the present application from merely scanning the data and which occurs after the rasterizing. Appellants respectfully submit that the generic scanning of Ishigami fails to teach or render obvious the combination of limitations of claim 2 including rasterizing the image data.

Referring to the reference to Figs. 1 and 2 of Ishigami at page 28 of the Examiner's Answer, the Office has failed to identify any teachings that the apparatus of Figs. 1 and 2 of Ishigami disclose the above-recited limitations.

Referring to page 28 of the Examiner's Answer, Appellants respectfully submit that the generation of clock pulses cannot be fairly interpreted to teach or suggest the claimed limitations of modifying the image from an initial format to raster image data when properly considered with the teachings of the specification as discussed above.

Furthermore, Appellants respectfully submit that the Office has failed to identify any teachings in Chase which cure the deficiencies of Ishigami with respect to the above-recited limitations. In particular, the Office has failed to identify any teachings that Chase discloses rasterizing the image data from an initial format to raster image data or that modifying the image data using correction data comprises modifying the image data being rasterized during the rasterizing. Accordingly, Appellants respectfully submit that the teachings of Ishigami or Chase taken alone or in combination fail to teach or suggest positively-recited limitations of the claims and the prior art rejection over Ishigami or Ishigami in combination with Chase is improper.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument F

Claims 6, 14 and 30 recite *modifying the image data using a raster image processor* (claim 6) or a *raster image processor modifying the image data* (claims 14 and 30).

Referring to page 30 of the Examiner's Answer, Appellants respectfully dispute the assertion that Appellant argues patentability of claims 6, 14 and 30 based upon the same reasoning used for arguments pertaining to claim 2. Appellants have argued the patentability of claims 6, 14 and 30 separately from claim 2 and Appellants respectfully submit that claims 6, 14, and 30 are allowable for the respective limitations of the claims and the reasons provided in Argument F of the Brief of Appellants.

The teachings in Figs. 11a-b and col. 4, lines 59-61 of Ishigami fail to teach or suggest a raster image processor as defined in the claims including modifying image data using a raster image processor or the raster image processor modifying the image data. Appellants respectfully submit the generation of the *clock pulses* by the clock generating unit 9 using velocity correction data of Ishigami fails teach any limitations of a raster image processor or *modifying image data*. Furthermore, the mere scanning of col. 6, lines 25-44 of Ishigami fails to teach a raster image processor modifying image data or modifying image data using a raster image processor. Ishigami fails to teach that the scanning upon the photosensitive body of Ishigami modifies the image data let alone disclosing the claimed combination of limitations of the raster image processor and the modifying of the image data.

The Office continues to rely upon the same teachings of Chase in the Examiner's Answer as relied upon in the rejection of the claims set forth in the Office Action. However, these teachings of Chase fail to teach or suggest any use of correction data let alone the claimed limitations of *modifying image data using correction data using a raster image processor (claim 6) or processing circuitry*

operating as a raster image processor to modify the image data according to the correction data (claims 14 and 30).

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the prior art even if the references combined. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument G

Claim 21 recites (in combination with claim 18) that the *processing circuitry operates as a raster image processor to modify the image data to control the generation of light in a manner to reduce the presence of image errors.*

Referring to page 31 of the Examiner's Answer, Appellants respectfully dispute the assertion that Appellant argues patentability of claim 21 based upon the same reasoning used for arguments pertaining to claims 2, 6, 14 and 30. Appellants have argued the patentability of claim 21 separately from claims 2, 6, 14 and 30 and Appellants respectfully submit that claim 21 is allowable for the respective limitations of the claim and the reasons provided in Argument G of the Brief of Appellants.

The Office cites no new or additional prior art teachings in the Examiner's Answer in support of the rejection. The Office has relied upon the clock generating unit 9 of Ishigami as teaching the claimed processing circuitry. Appellants respectfully submit that the *clock generating unit 9* of Ishigami may not be fairly interpreted to teach that the processing circuitry operates as a *raster image processor let alone the claimed* raster image processor to modify *image data*. Furthermore, the mere scanning upon the photoconductor of Ishigami may not be fairly considered to teach or suggest the claimed raster image processor configured to modify image data which reduces the presence of image errors. Appellants respectfully submit that scanning may not be fairly interpreted to teach modifying the image data. In addition, the generic teachings of Chase fail to teach or suggest the claimed *raster image processor to modify the image data to reduce the presence of image errors* as claimed.

Positively-recited limitations of the claims are not disclosed nor suggested by the prior art even if the references combined. Appellants respectfully request

reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument H

Claims 15 and 22 recite *processing circuitry comprising raster image processing circuitry configured to convert the image data from an initial format to a raster format*.

Referring to page 32 of the Examiner's Answer, Appellants respectfully dispute the assertion that Appellant argues patentability of claims 15 and 22 based upon the same reasoning used for arguments pertaining to claims 2, 6, 14 and 30. Appellants have argued the patentability of claims 15 and 22 separately from claims 2, 6, 14 and 30 and Appellants respectfully submit that claims 15 and 22 are allowable for the respective limitations of the claims and the reasons provided in Argument H of the Brief of Appellants.

The Office cites no new or additional prior art teachings in the Examiner's Answer in support of the rejection. The Office has cited clock generating unit 9 as teaching the claimed processing circuitry. The generation of *clock signals* by clock generating unit 9 of Ishigami fails to teach or suggest *processing circuitry comprising raster image processing circuitry configured to convert **image data** from an initial format to a raster format*. The generic teachings of Chase fail to teach or suggest the claimed *raster image processing circuitry to modify the image data to reduce the presence of image errors* as claimed.

Positively-recited limitations of the claims are not disclosed nor suggested by the prior art even if the references combined. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument I

Clam 31 recites *modifying image data using correction data to reduce an introduction of image errors and the modifying comprises **modifying content of a representation of the hard image***.

Referring to page 34 of the Examiner's Answer, Appellants respectfully dispute the assertion that Appellant argues patentability of claim 31 based upon the

same reasoning used for arguments pertaining to claim 1. While claim 31 is allowable as being dependent upon a claim which is allowable for the reasons discussed above in Argument A, Appellants have also argued the patentability of claim 31 separately from claim 1 and Appellants respectfully submit that claim 31 is allowable for the respective limitations of claim 31 recited in addition to claim 1, the reasons provided in Argument H of the Brief of Appellants and the reasons herein.

Appellants also notes that the Office relies upon the same teachings of Ishigami as relied upon in support of the rejection of claim 31 in the Office Action. These teachings are deficient with respect to disclosing the claim limitations for the reasons set forth in the Brief of Appellants. In particular, Ishigami discloses generation of *clock signals* having different periods which fails to disclose or suggest any *modification of image data* let alone the specifically claimed limitations that the *modifying image data comprises modifying content of a representation of a hard image*. Appellants respectfully submit that generation of clock signals of Ishigami having different periods may not be fairly considered to teach modifying content of a representation of a hard image as claimed.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument J

Claim 32 recites that the accessing of claim 1 comprises *accessing initial image data, modifying the image data using correction data providing modified data, and wherein the **modified image data** causes different pixels of a raster to be imaged compared with the **initial image data**.*

The Office relies upon the same teachings of Ishigami in the Examiner's Answer as relied upon in support of the rejection set forth in the Office Action. Appellants respectfully submit that the teachings of generating clock pulses having different periods of Ishigami fails to teach or suggest any modification of image data when properly interpreted consistent with the teachings of the specification. The generation of the clock pulses having different periods fails to teach or suggest the

claimed modifying image data or the modified image data causes different pixels of a raster to be imaged compared with the initial image data.

Furthermore, Appellants have electronically searched Ishigami and failed to uncover any specific reference to a pixel let alone that the modified image data causes different pixels of a raster to be imaged compared with initial image data.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument K

Claim 33 *modifying image data using correction data to reduce an introduction of image errors and that the modifying comprises modifying a graphical object of a display list.*

The Office relies upon the same teachings of Ishigami in the Examiner's Answer in support of the rejection of claim 33 as relied upon in the Office Action. Appellants respectfully submit that the teachings of Ishigami fail to teach the claimed limitations for the reasons set forth in the Brief of Appellants.

Appellants have electronically searched Ishigami and have failed to uncover any reference to graphical object or display list let alone the specifically claimed limitations of modifying a graphical object of a display list using correction data to reduce an introduction of image errors. The generation of clock pulses of Ishigami fails to teach or suggest the claimed limitations of modifying a graphical object of a display list.

At page 36 of the Action, the Office indicates that graphical object is not defined in the claim. Appellants respectfully submit that claim terms are interpreted consistent with the specification. Appellants respectfully refer to paragraphs 0036-0042 of the specification which describes an example of production of a display list which comprises a list of graphical objects. An example in paragraph 0040 provides that a graphical object in the form of a circle may be modified to be an ellipse to reduce image errors. When properly interpreted with the teachings of the specification, Appellants respectfully submit it is clear that the generation of clock

signals having different periods of Ishigami fails to teach or suggest the claimed limitations of ***modifying a graphical object of a display list*** as positively claimed.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument L

The claims recite *after the modifying, outputting the image data to a light source* <u>*at a constant rate*</u> (claim 34) or that *modified data is applied to an optical scanning system* <u>*at a constant rate*</u> (claim 38).

Appellants respectfully refer to Brief of Appellants and the discussion of Fig. 11(b) of Ishigami which teaches that the generation of the clock signals having different periods *varies the clocking of the image data* as illustrated by the lower line of Fig. 11(b). The *varying of the clocking of the image data* of Ishigami fails to teach the claimed limitations of outputting or applying the image data at *a constant rate*.

The Office alleges at page 38 of the Examiner's Answer that the limitations are obvious because Ishigami teaches correcting for uniform velocity to be able to output at this undistorted uniform velocity/constant rate. Appellants note that the *Office fails to identify any teachings in support of the position that Ishigami teaches that data is outputted or applied at a constant rate.* To the contrary of the unsupported position of the Office, Appellants have electronically searched Ishigami and *failed to uncover any teachings of a* <u>*constant rate*</u> *or that* <u>*image data is output or applied at a constant rate*</u>. Appellants respectfully submit that the Office has failed to provide an articulated reasoning with a rational underpinning in support of the 103 rejection and the rejection is improper under *KSR v. Teleflex*, 82 USPQ2d 1385 (S. Ct. 2007). In addition, Appellants respectfully submit that Fig. 11(b) of Ishigami teaches away from the interpretation by the Office that Ishigami outputs data at a constant rate by teaching varying of the clocking of the image data and which illustrates the failure of the Office to provide a proper articulated reasoning with a rational underpinning in support of the 103 rejection.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument M

Claim 35 recites *modifying image data using correction data to reduce an introduction of image errors* and the *modifying provides modified image data which causes a pixel of one scan line of a raster to be imaged using a pixel of another scan line of the raster*.

Appellants respectfully submit that the claim is supported and adequately described by the specification as provided in the Brief of Appellants and further for the reasons provided below.

Appellants also respectfully submit that claim 35 recites allowable subject matter over the prior art for the reasons set forth in the Brief of Appellants.

At pages 39- 40 of the Examiner's Answer, the Office provides a discussion in support of the rejection which is *void of referring to or identifying any teachings in the prior art*. The recitation on pages 39-40 of the Examiner's Answer has not been demonstrated to be prior art. Appellants respectfully submit that the reliance upon teachings not qualifying as prior art illustrates the faulty nature of the 103 rejection and illustrates that the Office has failed to provide a proper *articulated reasoning with a **rational underpinning*** in support of the 103 rejection and as required by *KSR*.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument N

Claim 36 depends from claim 2 and recites that the *modifying during the rasterizing provides a raster to be imaged which is different than a raster provided by rasterizing of the image data without the modifying*.

Appellants respectfully submit that the claim is supported and adequately described by the specification as provided in the Brief of Appellants and further for the reasons provided below.

Appellants have electronically searched Ishigami and failed to uncover any teaching or reference to "raster" or "rasterizing" in Ishigami. Referring to pages 41-42 of the Examiner's Answer, Appellants respectfully that Ishigami is void of any reference to "raster" and is void of teaching the claimed combination of limitations of modifying the image data being rasterized during rasterizing.

The Office at pages 41-42 states that it is obvious that a raster of an image signal will be different after a modification and that an original is different from a modified original. However, Ishigami is void of teachings of modifying during rasterizing. To the contrary, Ishigami teaches generation of clock signals having different periods which fails to teach or suggest the claimed limitations of the *modifying the image data during the rasterizing which provides a raster which is different than a raster provided by rasterizing without modifying*.

The Office at page 42 alleges that a raster provided by modifying with correction data would be different than a raster provided without correction data. However, Ishigami teaches generation of clock signals having different periods using correction data which is void of disclosing or suggesting modifying the image data during rasterizing as claimed or the modifying provides a raster to be imaged which is different than a raster provided by rasterizing without modifying. Appellants respectfully submit that the rational provided by the Office in support of the 103 rejection is not based upon teachings of the prior art. Appellants respectfully submit that the Office has failed to provide a proper articulated reasoning with a rational underpinning in support of the 103 rejection and the 103 rejection is in error.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the teachings of the prior art. Appellants respectfully request reversal of the prior art rejection for the reasons herein and the reasons in the Brief of Appellants.

Argument O

Appellants intended to argue all 112 rejections as set forth in the Brief of Appellants addressing six claims rejected under 112, first paragraph which were added during the prosecution of the present application in the Office Action response filed July 12, 2007. At page 15 of the response (in the Remarks section), Appellants clearly stated that the new claims 31-38 were supported at least by Figs. 3-5 and the associated teachings of the specification. Appellants erroneously argued claim 31 in the Brief of Appellants instead of claim 32 but submit that all new claims 31-38 are supported and described by the teachings of the specification. Indeed, claim 32 recites limitations which are similar to the claimed subject matter of claim 35 whose 112 rejection was argued in section Q in the Brief of Appellants.

More specifically with reference to claim 32, such claim recites wherein the accessing comprises accessing the image data comprising initial image data and the modifying provides modified image data, and wherein the modified image data causes different pixels of a raster to be imaged compared with the initial image data.

Paragraph 0037 of the specification provides that the raster image processor may rasterize the display list. The raster image processor may calculate an intersection of individual scan lines with primitive graphical objects in the display list and determine which pixels to turn on and turn off to draw individual scan lines. The raster image processor produces binary raster image data for output to an image engine 18. Appellants also refer to the example of the specification at paragraph 0040 which states that a circle may be 10 pixels in diameter but the axis in the scan direction may increase or decrease with modification and the circle may become an ellipse to cancel the optical distortion. In the described example, the axis of the circle in the scan direction after modification might be 8 or 12 pixels. Accordingly, Appellants respectfully submit that it is clear from these teachings that the modification causes different pixels of the raster to be imaged (e.g., pixel 8 or 12 of the circle) compared with the initial image data (e.g., pixel 10 of the circle).

The MPEP states the test for sufficiency of support in an application is whether the disclosure relied upon reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter. MPEP

§2163.02 (8th ed., rev. 6) *citing Ralston Purina Co. v Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985). Notably, ***the subject matter of the claim need not be described literally (i.e., using the same terms** or in haec verba) in order for the disclosure to satisfy the description requirement*. MPEP §2163.02 (8th ed., rev. 6). Appellants respectfully submit that the inventor had possession of the claimed subject matter in consideration of the above-mentioned example of the specification. Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned example of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 32 for at least the above-mentioned reasons.

Argument P

Referring to the 112, first paragraph rejection of claim 34, the specification at paragraph 0044 provides *following rasterization of the image data using the correction data*, processing circuitry 14 may output the modified image data comprising raster data to light source 22 to control the emission of light to form the latent image. The ***modified image data may be outputted to light source 22 at a constant rate*** in one embodiment. Paragraph 0016 of the specification provides that image data to be imaged is modified prior to scanning operations using the image data to accommodate scan geometry error.

Appellants respectfully submit that these teachings adequately support and describe the subject matter of claim 34 which recites, *after the modifying*, outputting the image data to a light source at a constant rate, and wherein the light source is configured to generate the light.

At pages 43-44 of the Examiner's Answer, the Office alleges that paragraph 0044 does not adequately describe the claimed subject matter because paragraph 0044 refers to modified image data and claim 34 recites image data. Appellants again respectfully refer to MPEP §2163.02 (8th ed., rev. 6) which states that the test for sufficiency of support in an application is whether the disclosure relied upon reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter. Appellants respectfully submit that the example of outputting modified image data at the constant rate of the original specification

reasonably conveys to the artisan that the inventors had possession of the claimed limitations of outputting the image data at the constant rate especially in consideration of the specific claim language reciting that the *outputting of the image data is after the modifying of the image data* as recited in combination with claim 1 from which claim 34 directly depends. Again, Appellants refer to the MPEP which provides that *the subject matter of the claim **need not be described literally (i.e., using the same terms or in haec verba)** in order for the disclosure to satisfy the description requirement*. MPEP §2163.02 (8th ed., rev. 6).

Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned example of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 34 for at least the above-mentioned reasons.

Argument Q

Claim 35 recites that the modifying provides *modified image data which causes a pixel of one scan line of a raster to be imaged using a pixel of another scan line of the raster*.

Appellants respectfully submit that claim 35 is adequately supported and described by the teachings of the specification referred to in the Brief of Appellants including paragraphs 0037, 0040 and 0043.

At page 44 of the Examiner's Answer and without further explanation, the Office states that these teachings of paragraphs 0037, 0040 and 0043 support determining which pixels to turn on and off. In fact, such is explicitly taught in one sentence of paragraph 0037. However, as discussed in the Brief of Appellants, the additional teachings of paragraphs 0040 and 0043 with reference to controlling what pixels of circle 10 having a diameter of 10 pixels to image to correct for the errors of the optical system (i.e., image the circle as an ellipse) clearly disclose, support and describe that the *modified image data causes a pixel of one scan line of a raster to be imaged using a pixel of another scan line of the raster*.

Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned example of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 35 for at least the above-mentioned reasons.

Argument R

At pages 45-46 of the Examiner's Answer, the Office appears to confuse the statutory requirements of 112 and 103. Appellants herein submit that claim 36 complies with 112, first paragraph and also complies with section 103 as discussed above.

Claim 36 recites that the modifying during the rasterizing provides a raster to be imaged which is different than a raster provided by rasterizing of the image data without the modifying.

Appellants respectfully submit that one of skill in the art would understand that the raster provided by the modifying with the correction data (e.g., pre-warping of primitive object) would be different than a raster provided without modification using the correction data (e.g., no pre-warping of a primitive object) when considered with the examples described at paragraphs 0039 and 0040 of the specification.

Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned examples of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 36 for at least the above-mentioned reasons.

Referring to the 103 arguments on page 45 of the Examiner's Answer, Appellants respectfully submit that the Office has improperly relied upon Appellants' own teachings of paragraph 0040 as apparently providing a suggestion that the subject matter of claim 45 is obvious. Appellants respectfully submit that regardless of the improper reliance by the Office upon Appellants' own teachings, the art is void of disclosing or suggesting any modification of image data using correction data during the rasterizing as recited in claim 36 and claim 2 from which claim 36 depends. The art is void of teaching the combination of claimed limitations of modifying image data using correction data during the rasterizing and the modifying during the rasterizing provides a raster to be imaged which is

different than a raster provided by rasterizing of the image data without the modifying.

Appellants respectfully submit that the claim complies with section 112, first paragraph and section 103 for the above-mentioned reasons and the reasons set forth in Argument N hereof and the Brief of Appellants.

Appellants respectfully request reversal of all rejections of claim 36.

Argument S

Claim 37 recites the processing circuitry is configured to modify the image data according to the correction data to provide modified image data, and wherein the accessed image data comprises initial image data, and wherein the modified image data causes different pixels of a raster to be imaged compared with the initial image data.

Appellant referred to the example of paragraph 0040 of the specification which provides that a small circle 10 or 100 pixels may become a small ellipse where the axis in the scan direction may increase or decrease to cancel the optical distortion and may be 8 or 12 pixels. At page 46 of the Examiner's Answer, the Examiner states that he does not understand how this example correlates to the claimed limitations. Without modification of the image data, the pixels corresponding to a diameter of 10 pixels for the circle would be imaged in the scan direction. However, with the modification, the pixels corresponding to a diameter of 8 or 12 pixels would be imaged as opposed to a diameter corresponding to 10 pixels. Appellants respectfully submit that this example reasonably conveys to an artisan that Appellants had possession of the language recited in claim 37 and that the modified image data causes different pixels of a raster to be imaged (e.g., pixels imaged corresponding to a diameter of 8 or 12 pixels) compared with the initial image data (e.g., pixels imaged corresponding to a diameter of 10 pixels).

Appellants again respectfully refer to MPEP §2163.02 (8th ed., rev. 6) which states that the test for sufficiency of support in an application is whether the disclosure relied upon reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter and MPEP 2163.02 which provides that *the subject matter of the claim **need not be described literally***

(i.e., using the same terms or in haec verba) *in order for the disclosure to satisfy the* *description requirement.*

Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned example of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 37 for at least the above-mentioned reasons.

Argument T

Claim 38 recites that the processing circuitry is configured to modify the image data to provide modified image data, and wherein the modified image data is applied to the optical scanning system at a constant rate.

Appellants refer to the teachings of paragraph 0044 of the original application which provide that processing circuitry 14 may output the *modified* *image data at a constant rate* in one embodiment.

The Office states at page 47 that this example does not seem to support the limitations recited above but rather that the processing circuitry 14 outputs the modified image data at a constant rate. However, if the entirety of paragraph 0044 is properly considered, such teaches that processing circuitry 14 outputs the modified image data to light source 22. Paragraph 0023 provides that optical scanning system 20 includes the light source 22. Accordingly, the specification clearly teaches that the *processing circuitry 14 outputs the data to the optical* *scanning system* and paragraph 0044 clearly teaches that the *processing circuitry* *may output the modified image data at a constant rate*. Appellants respectfully submit that the specification adequately supports and described the limitations the modified image data is applied to the optical scanning system at a constant rate. Appellants again respectfully refer to MPEP 2163.02 which provides that *the* *subject matter of the claim* ***need not be described literally (i.e., using the same*** ***terms or in haec verba)*** *in order for the disclosure to satisfy the description* *requirement*.

Appellants respectfully submit that the specification adequately supports and describes the claimed subject matter in consideration of the above-mentioned teachings of the specification.

Appellants respectfully request withdrawal of the 112 rejection of claim 38 for at least the above-mentioned reasons.
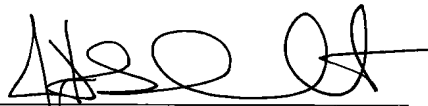
Conclusion

In view of the foregoing, reversal of the rejections of the claims is respectfully requested. For any one of the above-stated reasons, the rejections of the respective claims should be reversed. In combination, the above-stated reasons overwhelmingly support such reversal. Accordingly, Appellants respectfully request that the Board reverse the rejections of the claims.

Respectfully submitted,

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